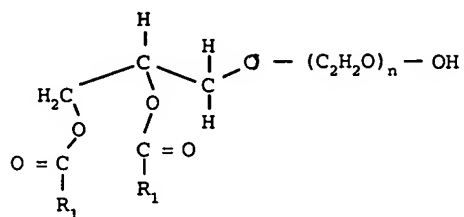


CLAIMS

What is claimed is:

- 1) A lipid compound represented by the formula



- wherein R_1 is a long chain fatty acid, R_2 is a long chain fatty chain between 11 and 25 carbons in length, and wherein the variable “n” is an integer between 11 and 46, and wherein said compound is characterized by the ability to inhibit biological activity of phospholipase A_2 .

- 2) The compound of claim 1, wherein said compound is further characterized by the ability to inhibit biological activity of phospholipase A_2 in vitro at concentrations less than or equal to 1% by volume.

- 3) The compound of claim 1, wherein said compound is characterized by the ability to inhibit biological activity of cyclooxygenase-2

- 4) The compound of claim 1, wherein said R_1 long chain fatty acid is between 11 and 25 carbons in length.

- 5) The compound of claim 1, wherein said R_2 long chain fatty acid is between 11 and 25 carbons in length.

- 6) The compound of claim 1, wherein the variable “n” is an integer between 11 and 46.

1 7) The compound of claim 1, wherein R1 represents a long chain fatty acid selected
2 from the group consisting of:

- 3 (a) $\text{CH}_3(\text{CH}_2)_{10}$,
- 4 (b) $\text{CH}_3(\text{CH}_2)_{10}(\text{CH})_2(\text{CH}_2)_7$, and
- 5 (c) $\text{CH}_3(\text{CH}_2)_{12}$.
- 6 (d) $\text{CH}_3(\text{CH}_2)_{14}$,
- 7 (e) $\text{CH}_3(\text{CH}_2)_{16}$,

1 8) The compound of claim 1, wherein R2 represents a long chain fatty acid selected
2 from the group consisting of:

- 3 (a) $\text{CH}_3(\text{CH}_2)_{10}$,
- 4 (b) $\text{CH}_3(\text{CH}_2)_{10}(\text{CH})_2(\text{CH}_2)_7$,
- 5 (c) $\text{CH}_3(\text{CH}_2)_{12}$,
- 6 (d) $\text{CH}_3(\text{CH}_2)_{14}$, and
- 7 (e) $\text{CH}_3(\text{CH}_2)_{16}$.

1 9) The compound of claim 1, wherein the variable "n" is an integer between 11 and
2 46, and wherein R1 and R2 each represent a long chain fatty acid selected from the group
3 consisting of:

- 4 (a) $\text{CH}_3(\text{CH}_2)_{10}$,
- 5 (b) $\text{CH}_3(\text{CH}_2)_{10}(\text{CH})_2(\text{CH}_2)_7$,
- 6 (c) $\text{CH}_3(\text{CH}_2)_{12}$,
- 7 (d) $\text{CH}_3(\text{CH}_2)_{14}$, and
- 8 (e) $\text{CH}_3(\text{CH}_2)_{16}$.

1 10) The compound of claim 1, wherein "n" is 23, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{10}$.

1 11) The compound of claim 1, wherein "n" is 12, and R1 and R2 are
2 $\text{CH}_3(\text{CH}_2)_{10}(\text{CH})_2(\text{CH}_2)_7$.

1 12) The compound of claim 1, wherein "n" is 23, and R1 and R2 are
2 $\text{CH}_3(\text{CH}_2)_{10}(\text{CH})_2(\text{CH}_2)_7$.

1 13) The compound of claim 1, wherein "n" is 45, and R1 and R2 are
2 $\text{CH}_3(\text{CH}_2)_{10}(\text{CH})_2(\text{CH}_2)_7$.

1 14) The compound of claim 1, wherein "n" is 12, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{12}$.

1 15) The compound of claim 1, wherein "n" is 23, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{12}$.

1 16) The compound of claim 1, wherein "n" is 45, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{12}$.

1 17) The compound of claim 1, wherein "n" is 23, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{14}$.

1 18) The compound of claim 1, wherein "n" is 45, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{14}$.

1 19) The compound of claim 1, wherein "n" is 12, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{16}$.

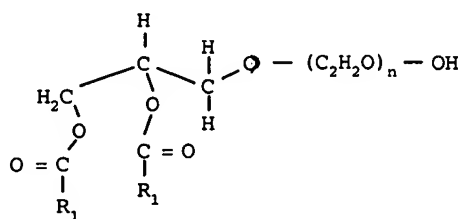
1 20) The compound of claim 1, wherein "n" is 23, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{16}$.

1 21) The compound of claim 1, wherein "n" is 45, and R1 and R2 are $\text{CH}_3(\text{CH}_2)_{16}$.

1 22) A composition of matter comprising one or more lipids having the formula

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1



3

4 wherein R₁ is a long chain fatty acid chain between 11 and 25 carbons in length, R₂
5 is a long chain fatty acid chain between 11 and 25 carbons in length, and wherein the variable
6 "n" is an integer between 11 and 46, and

7 wherein said compound is further characterized by the ability to inhibit biological
8 activity of phospholipase A₂.

1 23) The composition of matter of claim 22, wherein said compound is characterized by
2 the ability to inhibit biological activity of phospholipase A₂ in vitro at concentrations less
3 than or equal to 1% by volume.

1 24) The composition of matter of claim 22, wherein said compound is characterized by
2 the ability to inhibit biological activity of cyclooxygenase-2

1 25) The composition of matter of claim 22, wherein said composition is a
2 pharmaceutical composition

1 26) The composition of matter of claim 25, further comprising a pharmaceutically
2 acceptable carrier.

1 27) The composition of matter of claim 22, wherein said composition is a foodstuff.

1 28) The composition of matter of claim 22, wherein said composition is a dietary
2 supplement.

1 29) The composition of matter of claim 22, wherein said composition is a cosmetic.

1 30) The composition of matter of claim 26, further comprising a delivery form selected
2 from the group consisting of: a tablet, a capsule, a syrup, a dragee, a suspension, an elixer,
3 a solution, a powder, granules, an emulsion, microspheres, nanospheres, lipid vesicles,
4 polymeric vesicles, or an injectable.

1 31) The composition of matter of claim 26, further comprising a delivery form selected
2 from the group consisting of an ointment, a cream, a milk, an impregnated pad, a gel, a
3 spray, and a lotion.

1 32) The composition of matter of claim 26, Adapted for topical administration.

1 33) The composition of matter of claim 32, wherein said one or more lipids comprise
2 .1% to 50% of the composition of matter by volume.

1 34) The composition of matter of claim 32, wherein said one or more lipids comprise
2 .1% to 10% of the composition of matter by volume.

1 35) The composition of matter of claim 32, consisting essentially of:

| | | |
|----|-------------------------------|------------------|
| 2 | Purified water | 50.00% to 80.00% |
| 3 | Isopropyl myristate | .50% to 5.00% |
| 4 | Caprylic/Capric Triglycerides | .50% to 5.00% |
| 5 | Dimethicone | .30% to 3.00% |
| 6 | Cyclomethicone | .60% to 6.00% |
| 7 | Tocopheryl Acetate | .08% to .75% |
| 8 | Stearly Alcohol | 1.50% to 15.00% |
| 9 | PEG-23 Glyceryl Dipalmitate | 1.50% to 15.00% |
| 10 | Cholesterol | .05% to .30% |
| 11 | BHT | .05% to .30% |
| 12 | Uniphen-23 | .50% to 5.00% |
| 13 | PEG-100 Stearate | .60% to 6.00% |
| 14 | Glyceryl Stearate | .60% to 6.00% |
| 15 | Retinyl Palmitate | .30% to 3.00% |
| 16 | Imidurea | .10% to 1.00% |

1 36) The composition of matter of claim 27, adapted for systemic administration.

1 37) The composition of matter of claim 22, wherein said compound is incorporated
2 into a liposome.

1 38) The composition of matter of claim 29, further comprising a cosmetically
2 acceptable carrier vehicle, or dilutant.

1 39) The composition of matter of claim 37, further a delivery form selected from the
2 group consisting of an ointment, a cream, a milk, an impregnated pad, a gel, a spray, a
3 lotion, a soap, and a shampoo.

1 40) A method for treating an inflammation related condition in a mammal comprising
2 the step of administering a composition according to claim 28.

1 41) A method for treating an inflammation related condition in a mammal comprising
2 the step of administering a composition according to claim 29.

1 42) A method for treating an inflammation related condition in a mammal comprising
2 the step of administering a composition according to claim 30.

1 43) The method according to claim 40, wherein the inflammation related condition is
2 selected from the group consisting of: rheumatoid arthritis, osteoarthritis, psoriasis,
3 monoarthritis, gout, collagen vascular disease, pancreatitis, peritonitis, sepsis and shock,
4 renal failure, atopic dermatitis, and inflammatory skin conditions.

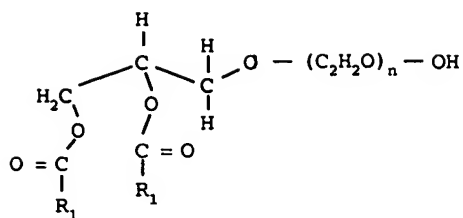
1 44) The method according to claim 41, wherein the inflammation related condition is
2 selected from the group consisting of: rheumatoid arthritis, osteoarthritis, psoriasis,
3 monoarthritis, gout, collagen vascular disease, pancreatitis, peritonitis, sepsis and shock,
4 renal failure, atopic dermatitis, and inflammatory skin conditions.

1 45) The method according to claim 42, wherein the inflammation related condition is
2 selected from the group consisting of: rheumatoid arthritis, osteoarthritis, psoriasis,
3 monoarthritis, gout, collagen vascular disease, pancreatitis, peritonitis, sepsis and shock,
4 renal failure, atopic dermatitis, and inflammatory skin conditions.

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1 46) A method for treating an inflammation related condition in a mammal comprising
2 the step of administering an effective amount of a composition of matter comprising one
3 or more lipids having the formula

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6 Wherein R₁ is a long chain fatty acid between 11 and 25 carbons in length, R₂ is a
7 long chain fatty between 11 and 25 carbons in length, and wherein the variable “n” is an
8 integer between 11 and 46.

1 47) The method of claim 46, wherein said composition of matter is a pharmaceutical
2 composition further comprising a pharmaceutically acceptable carrier.

1 48) The method of claim 46, wherein said composition of matter is a foodstuff.

1 49) The method of claim 46, wherein said composition of matter is a dietary
2 supplement.

1 50) The method of claim 46, wherein said composition of matter is a cosmetic.

1 51) The method of claim 47, wherein the inflammation related condition is selected
2 from the group consisting of: rheumatoid arthritis, osteoarthritis, psoriasis, monoarthritis,
3 gout, collagen vascular disease, pancreatitis, peritonitis, sepsis and shock, renal failure,
4 atopic dermatitis, and inflammatory skin conditions.

1 52) The method of claim 48, wherein the inflammation related condition is selected
2 from the group consisting of: rheumatoid arthritis, osteoarthritis, psoriasis, monoarthritis,
3 gout, collagen vascular disease, pancreatitis, peritonitis, sepsis and shock, renal failure,
4 atopic dermatitis, and inflammatory skin conditions.

1 53) The method of claim 49, wherein the inflammation related condition is selected
2 from the group consisting of: rheumatoid arthritis, osteoarthritis, psoriasis, monoarthritis,
3 gout, collagen vascular disease, pancreatitis, peritonitis, sepsis and shock, renal failure,
4 atopic dermatitis, and inflammatory skin conditions.

1 54) The method of claim 47, wherein said pharmaceutical composition comprises a
2 delivery form selected from the group consisting of: a tablet, a capsule, a syrup, a dragee,
3 a suspension, an elixer, a solution, a powder, granules, an emulsion, microspheres,
4 nanospheres, lipid vesicles, polymeric vesicles, an injectable, an ointment, a cream, a milk,
5 an impregnated pad, a gel, a spray, and a lotion.

1 55) The method of claim 50, further comprising a delivery form selected from the
2 group consisting of an ointment, a cream, a milk, an impregnated pad, a gel, a spray, and a
3 lotion.

1 56) The composition of matter of claim 46, wherein said one or more lipids comprise
2 .1% to 10% of the composition of matter by volume.

1 57) The method of claim 47, wherein said pharmaceutical composition is adapted for
2 topical administration.

1 58) The composition of matter of claim 57, consisting essentially of:

| | | |
|----|-------------------------------|------------------|
| 2 | | |
| 3 | Purified water | 50.00% to 80.00% |
| 4 | Isopropyl myristate | .50% to 5.00% |
| 5 | Caprylic/Capric Triglycerides | .50% to 5.00% |
| 6 | Dimethicone | .30% to 3.00% |
| 7 | Cyclomethicone | .60% to 6.00% |
| 8 | Tocopheryl Acetate | .08% to .75% |
| 9 | Stearly Alcohol | 1.50% to 15.00% |
| 10 | PEG-23 Glyceryl Dipalmitate | 1.50% to 15.00% |
| 11 | Cholesterol | .05% to .30% |
| 12 | BHT | .05% to .30% |
| 13 | Uniphen-23 | .50% to 5.00% |
| 14 | PEG-100 Stearate | .60% to 6.00% |
| 15 | Glyceryl Stearate | .60% to 6.00% |
| 16 | Retinyl Palmitate | .30% to 3.00% |

| | | |
|----|----------|---------------|
| 17 | Imidurea | .10% to 1.00% |
|----|----------|---------------|

1 59) The composition of matter of claim 47, adapted for systemic administration.

1 60) The composition of matter of claim 46, wherein said compound is incorporated
2 into a liposome.